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Two Additional Stations for the Southern Woodfern Hybrid, *Dryopteris ×australis* in Maryland.—*Dryopteris ×australis* (W. Palmer) Small was originally listed erroneously for Maryland by Clyde F. Reed (*The ferns and fern allies of Maryland and Delaware including District of Columbia,* Reed Herbarium, Baltimore, 1953). His identifications were based on specimens of *Dryopteris celsa* (Knowlt.) W. Palmer & Pollard from Harford County and northern Virginia. The first valid report of *D. ×australis* occurred in 1992 by Redman (Amer. Fern J. 82:81–82, 1992). Since that time, my continuing studies of *D. celsa* and *D. celsa* hybrid populations have uncovered two additional stations for this rare hybrid.

The first new Maryland population was discovered in May of 1988 by J. Christopher Ludwig, formerly of the Maryland Natural Heritage Program (MNHP), and placed in the program database erroneously as *D. celsa*. In 1993, Gene Cooley, formerly of the MNHP, presented me with the *D. celsa* data from the database for my studies. I visited all stations in the database. My visit to the Ludwig site proved to be a surprise. The ferns had triangular, not deltoid, basal pinna. Chromosome squashes were triploid, with an LLG genomic formula, and a meiotic configuration of 41 bivalents and 41 univalents. This was a second colony of *D. ×australis* for Maryland. I counted approximately 100 plants in the colony. The site is a small stream bank in a low *Acer rubrum-Liriodendron tulipifera* forest along Landing Road in Patapsco Valley State Park in northern Howard County. The closest stations known for the parent species are 0.94 km for *D. celsa* and 510 km for *D. ludoviciana*. Specimens (*Redman 5013*) have been deposited in the herbaria of Towson University (BALT), the University of Michigan (MICH) and the U.S. National Herbarium (US).

During 1997, I discovered a small colony of wood ferns in an *Acer rubrum-Liquidambar styraciflua* alluvial forest bordering the North River along Johns Hopkins Road in northern Anne Arundel County. I first believed these plants, 22 in number, might be *D. celsa* × *cristata,* because *D. cristata* (L.) A. Gray was present at the site. However, the fronds appeared to be too broad for that hybrid and the number of ferns would be unusually large for a *D. celsa* × *cristata* site. Chromosome squashes proved the plants to be *D. ×australis*. The closest stations known for the parent species are 8.3 km for *D. celsa* and 508 km for *D. ludoviciana*. Specimens (*Redman 5102*) have been deposited at BALT, MICH, andUS.

In summary, three sites for *D. ×australis* are currently known for Maryland, one in Baltimore County, one in Howard County, and one in Anne Arundel County. Werth et al. (Castanea 53:263–271, 1988) report that the total number of sites for this hybrid from throughout its range are in the mid-teens. More sites for *D. ×australis* are currently known from Maryland than any other state

within the *D.* ×*australis* range, with only one or two sites currently known in other states.—DONNELL E. REDMAN, 2615 Harwood Rd, Baltimore, MD 21234-2919.

3-*C*-(6‴-*O*-Acetyl-β-cellobiosyl) Apigenin, a New Flavonoid from *Pteris vittata*.—Previous work on the flavonoids of *Pteris vittata* L. (Pteridaceae) has led to the identification of luteolidin 5-*O*-glucoside by Harborne (Phytochemistry 5:589–600, 1966); in addition acid hydrolysis of the extracts of this fern has led to the identification of kaempferol, quercetin, leucocyanidin, and leucodelphinidin by Voirin (Ph. D. thesis, University of Lyon, p. 151, 1970). Other species in the genus *Pteris* have been reported to contain flavonoids. From *P. grandifolia* L., quercetin 3-*O*-(3″-*O*-acetylrhamnoside) and quercetin 3-*O*-(4″-*O*-acetylrhamnoside) have been isolated by Tanaka et al. (Chem. Pharm. Bull. 26: 3580–3582, 1978). From *P. cretica* L., Imperato isolated luteolin 8-*C*-rhamnoside-7-*O*-rhamnoside (Phytochemistry 37:589–590, 1994) and three flavone *O*-glycosides (7-*O*-glucoside, 7-*O*-rutinoside and 7-*O*-robinobioside of luteolin) (Experientia 50:115–1116, 1994); in addition luteolin 7-*O*-sophoroside and luteolin 7-*O*-gentiobioside have been found in *P.cretica* by Imperato and Nazzaro (Phytochemistry 41:337–338, 1996).

The present paper deals with the presence of a new *C*-glycosylflavone in *Pteris vittata*. This fern was collected in the Botanic Garden of the University of Naples (Italy) and was identified by Dr. R. Nazzaro (Dipartimento di Biologia Vegetale dell'Universita' di Napoli); a voucher specimen has been deposited in the Herbarium Neapolitanum of the University of Naples (NAP). The new *C*-glycosylflavone was isolated from an ethanolic extract of aerial parts of this fern by preparative paper chromatography in BAW (*n*-butanol-acetic acid-water, 4:1:5, upper phase), 15% HOAc (acetic acid), and BEW (*n*-butanol-ethanol-water, 4:1:2.2). Further purification was carried out by Sephadex LH-20 column chromatography, eluting with methanol.

Color reactions (brown to yellow in UV+NH_3), R_f values on Whatman No 1 paper (0.18 in BAW; 0.27 in TBA [*tert*-butanol-acetic acid-water, 3:1:1]; 0.44 in 15% HOAc), and ultraviolet spectral analysis in the presence of the customary shift reagents (λ_{max} (nm) (MeOH) 272, 332; +$AlCl_3$ 280, 305, 347; +$AlCl_3$/HCl 279, 303, 343, 382; +NaOAc 282, 304 (sh), 382; +NaOMe 282, 332, 400) suggested that the isolated compound (I) may be a flavone glycoside with free hydroxyl groups at position 5 (shifts with $AlCl_3$ and $AlCl_3$/HCl), 7 (shift with NaOAc) and 4′ (shift with NaOMe). Both total acid hydrolysis (2 N HCl/MeOH 1:1; 1 hr at 100 °C) and controlled acid hydrolysis (10% HOAc; 3.5 hr under reflux) gave D-glucose and a compound (II) that had chromatographic mobility of a flavonoid glycoside (R_f values on Whatman No1 paper: 0.83 in BAW; 0.70 in TBA; and 0.28 in 15% HOAc) and possessed UV spectral characteristics identical with those of I thus indicating that the isolated compound (I) is a *C*-glycosylflavone in which the hydrolyzable D-glucose is not linked to phenolic hydroxyl groups; $FeCl_3$ oxidation of II gave D-glucose. The presence in the ^1H